

Mango BBS

RD Agric (Pty) Ltd



Estelle Louw MSc
Agricultural Research

Cell: +27 84 319 4559
E-mail: c.estelle.louw@gmail.com

- ▶ Increase in BBS incidences
 - Cutting down of Casuarina trees
 - Reduced Cu applications
 - Withdrawal of Bion**
- ▶ Various companies invested in finding alternatives
 - Spray programme
 - 14 treatments
- ▶ Determine:
 - BBS control
 - Impact on *Fusarium* malformation
- ▶ Sites:
 - Richmond Kopano - TA: 6-tree plots (4 data trees + 2 buffer trees)
 - Mohlatsi - Keitt: 8-tree plots (6 data trees + 2 buffer trees)
 - Randomized block with 4 replications
- ▶ Applications:
 - Handgun (Tractor spray block application - Dec)



Treatment List

Treatment	Product	Dose	Unit	Application Code
1	Untreated			
2	Aqua-Right 7	50	ml/100 L	A B D E F G (H)
	Bion 500 WG	12,5	g/100 L	A B D E F G
	Copstar 120 SC	350	ml/100 L	A B D E F G (H)
3	Aqua-Right 7	50	ml/100 L	D E F G (H)
	Miravis 200 SC	50	ml/100 L	A C
	Copstar 120 SC	350	ml/100 L	D E F G (H)
4	Aqua-Right 7	50	ml/100 L	D E F G (H)
	A24591A	12,5	ml/100 L	A C D E F G
	Copstar 120 SC	350	ml/100 L	D E F G (H)
5	Aqua-Right 7	50	ml/100 L	D E F G (H)
	Double Nickel 55	1000	g/ha	B C D E F G
	Khito SC	60	ml/100 L	B C D E F G
	Copstar 120 SC	350	ml/100 L	D E F G (H)
6	Aqua-Right 7	50	ml/100 L	D E F G (H)
	Double Nickel 55	1000	g/ha	A B C D E F G
	Khito SC	60	ml/100 L	A B C D E F G
	Copstar 120 SC	350	ml/100 L	D E F G (H)
7	Aqua-Right 7	50	ml/100 L	D E F G (H)
	Double Nickel 55	1000	g/ha	D E F G (H)
	Khito SC	60	ml/100 L	D E F G (H)
	Miravis 200 SC	50	ml/100 L	A C
	Copstar 120 SC	350	ml/100 L	D E F G (H)

Treatment	Product	Dose	Unit	Application Code
8	Agri-Cure 850 SP	500	g/100 L	A C D E F G (H)
	Copperman 180 SC	350	ml/100 L	A C D E F G (H)
	Savela (Signal)	250	ml/100 L	A C D E F G (H)
9	Agri-Cure 850 SP	500	g/100 L	A C D E F G (H)
	Copperman 180 SC	350	ml/100 L	D E F G (H)
	Savela (Signal)	250	ml/100 L	A C D E F G (H)
	Incite	500	ml/100 L	A B C
10	Aqua-Right 5	30	ml/100 L	A B D E F G (H)
	Bion 500 WG	12,5	g/100 L	A B D E F G
	Copperoxychloride	300	g/100 L	A B D E F G (H)
11	Aqua-Right 5	30	ml/100 L	A B D E F G (H)
	Copperoxychloride	300	g/100 L	A B D E F G (H)
12	Aurora	200	ml/100 L	A B D E F G (H)
	Hypercide	100	ml/100 L	A B D E F G (H)
13	Aqua-Right 5	30	ml/100 L	A B D E F G (H)
	Photon	150	ml/ha	A C
		100	ml/ha	E G
	Copperoxychloride	300	g/100 L	A B D E F G (H)
14	TerraCide Agri	500	ml/100 L	A B D E F G (H)

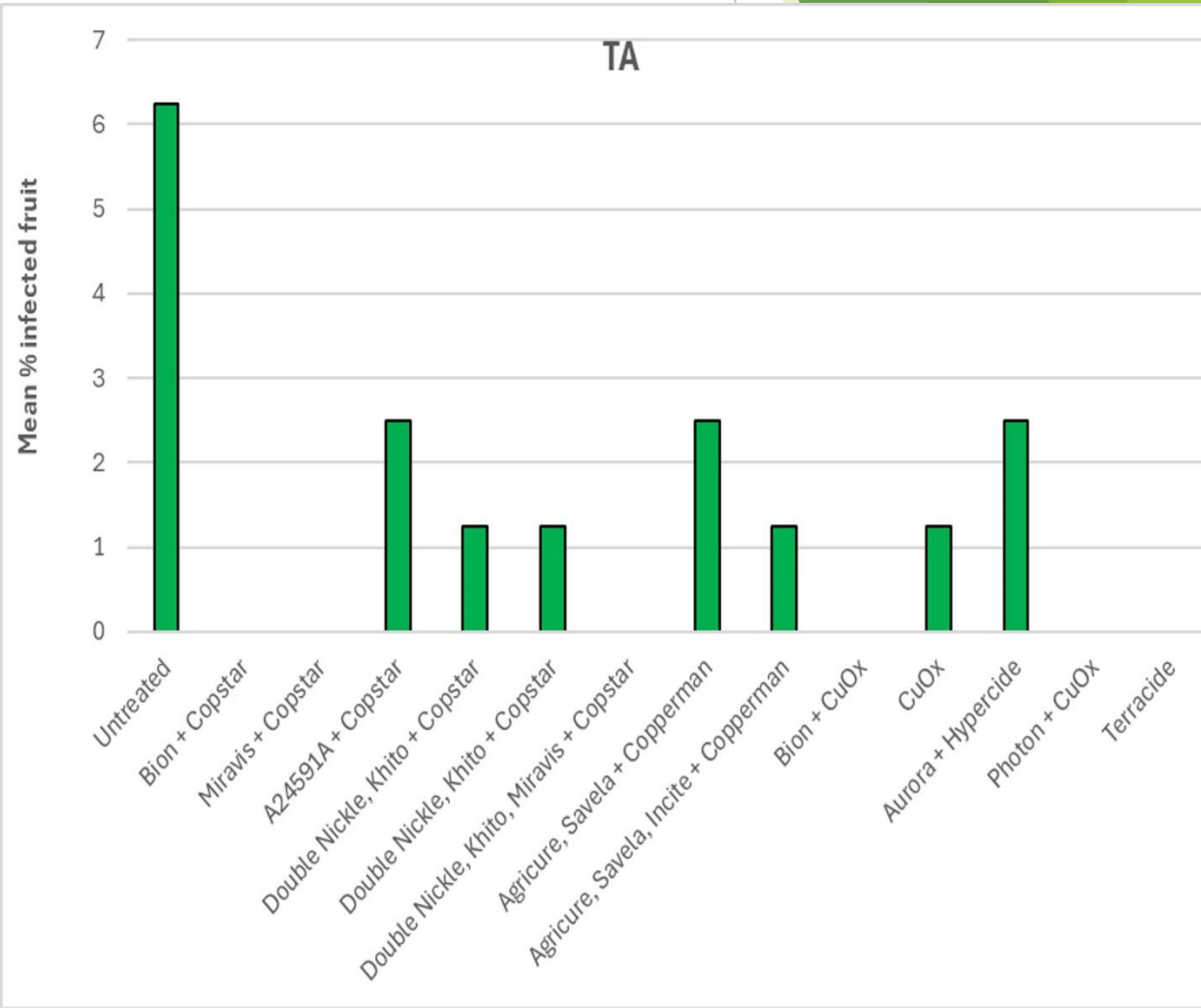
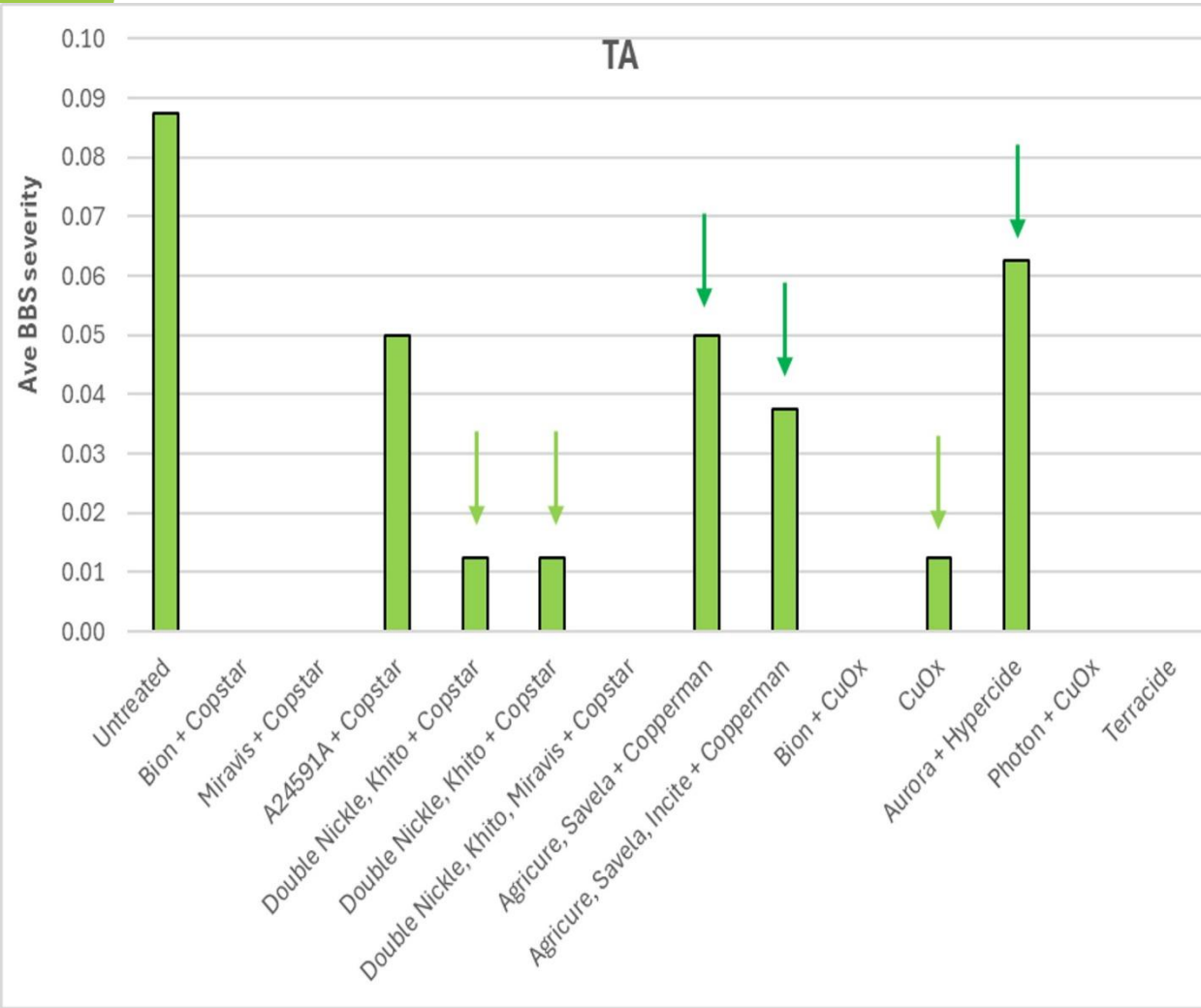


Application Code	Timing
A	Bud formation - bud swell (A-B)
B	Bud break - elongation (C-D)
C	Full flower (G-H)
D	Fruit set - Pea size fruit
E	Marble size fruit ($\pm$ 4 wks)
F	4 wks after appl. E
G	4 wks after appl. F
H	4 wks after appl. G



BBS - TA

- Infection negligible
 - Assess all fruit within reach on data trees
 - Rating scale of 0 = clean to 5 = excessive

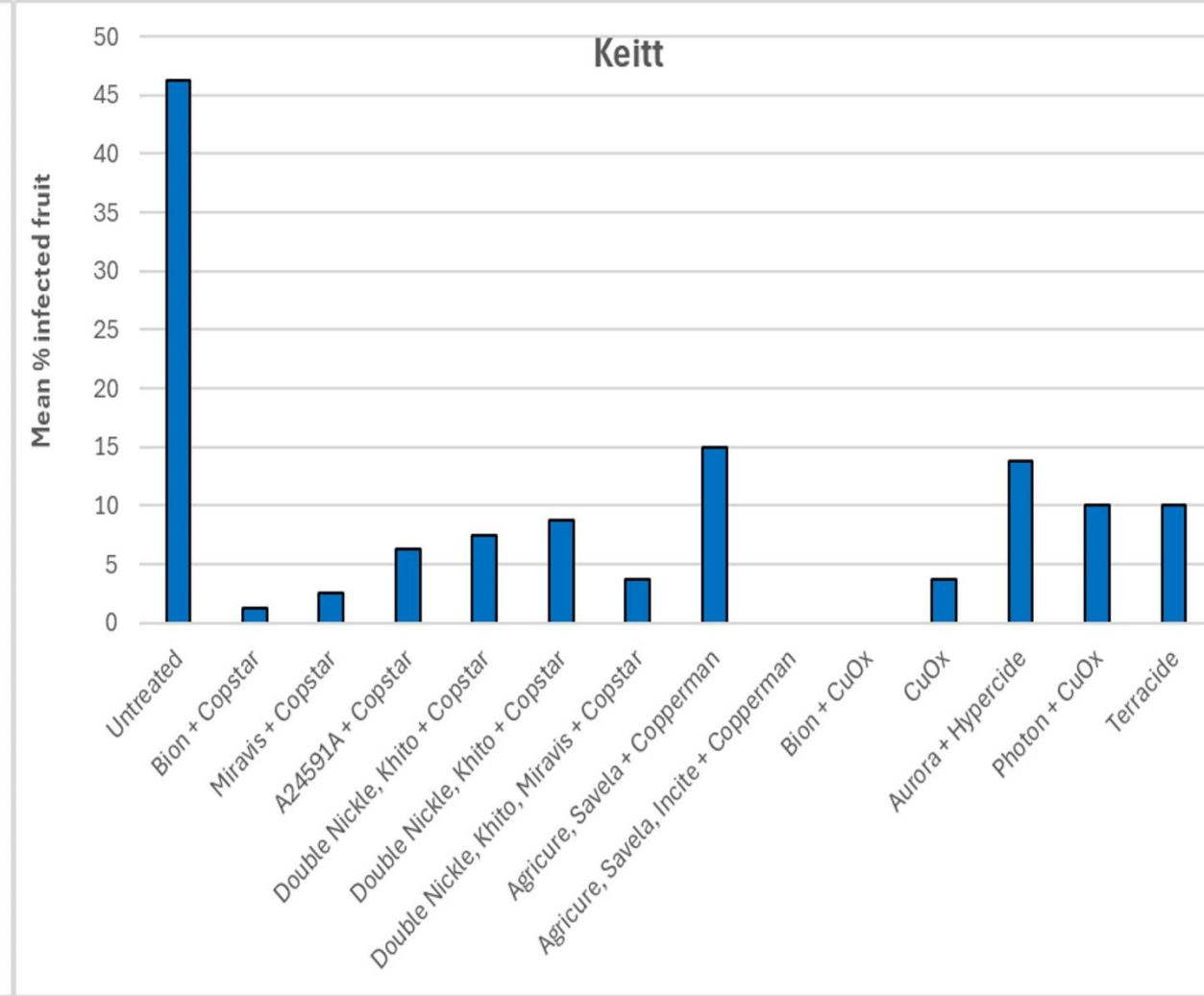
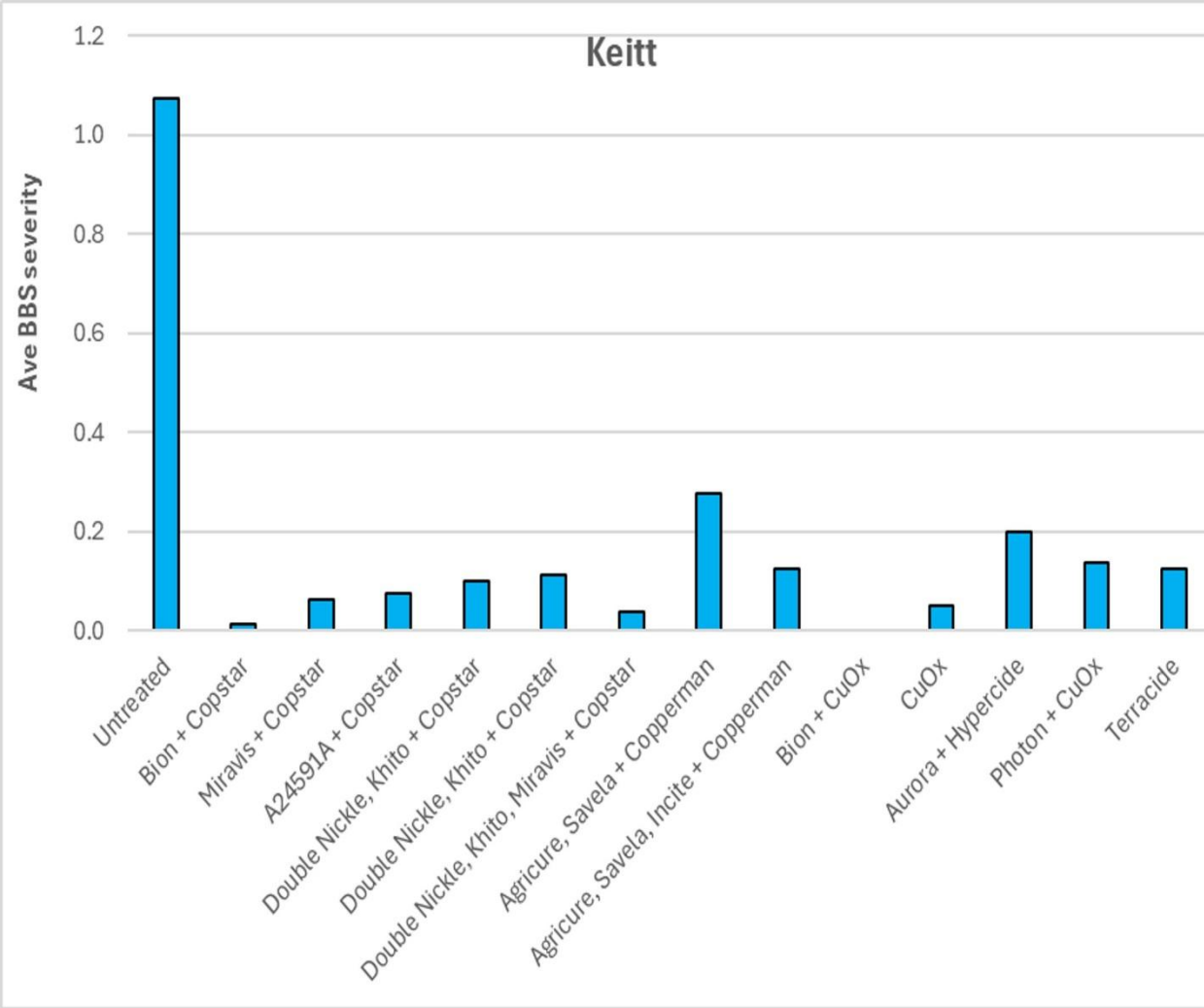


- TA - treated fruit with arrested development



BBS - Keitt

- Infection negligible
 - Asses UNTRT on outer unsprayed borders
 - Rating scale of 0 = clean to 5 = excessive



- Keitt - treated fruit with arrested development



Fusarium No noticeable effect due to impact of bud mite



Conclusion:

- All treatments reduced BBS infections

TA

Incidences too low to draw meaningful conclusions

Treated fruit with BBS with apparent arrested development

Keitt

Increase in BBS infections due to later harvesting date

Incidences in untreated plots considerably lower than untreated borders

All treatments contributed to lowering disease pressure in trial area

Reduced pressure = reduced chance for infections in UNTRT “pockets”

Importance of large-scale treatment

Repeat

High disease pressure

Either reduce efficacy where already shown present

OR increase efficacy if UNTRT base values increase

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Thank you